Vibha Rani Satsangi

List of Publications by Year
in descending order

67 papers	2,079 citations	218677 26 h-index	254184 43 g-index
67 all docs	67 docs citations	67 times ranked	2377 citing authors

#	Article	IF	Citations
1	Nanostructured bilayered thin films in photoelectrochemical water splitting â€“ A review. International Journal of Hydrogen Energy, 2012, 37, 18713-18730.	7.1	193
2	Electrodeposited zirconium-doped Î±-Fe2O3 thin film for photoelectrochemical water splitting. International Journal of Hydrogen Energy, 2011, 36, 2777-2784.	7.1	175
3	Spray pyrolytically deposited nanoporous Ti4+ doped hematite thin films for efficient photoelectrochemical splitting of water. International Journal of Hydrogen Energy, 2010, 35, 3985-3990.	7.1	99
4	Improved Photoelectrochemical Water Splitting Performance of Cu₂O/SrTiO₃ Heterojunction Photoelectrode. Journal of Physical Chemistry C, 2014, 118, 25320-25329.	3.1	86
5	A study on 170 MeV Au13+ irradiation induced modifications in structural and photoelectrochemical behavior of nanostructured CuO thin films. Nuclear Instruments & Methods in Physics Research B, 2004, 225, 291-296.	1.4	76
6	Enhanced Photoelectrochemical Response of BaTiO₃ with Fe Doping: Experiments and First-Principles Analysis. Journal of Physical Chemistry C, 2011, 115, 24373-24380.	3.1	75
7	Quantum dots sensitization for photoelectrochemical generation of hydrogen: A review. Renewable and Sustainable Energy Reviews, 2017, 68, 19-27.	16.4	73
8	Nanostructured Ti-Fe2O3/Cu2O heterojunction photoelectrode for efficient hydrogen production. Thin Solid Films, 2015, 574, 125-131.	1.8	59
9	Nanostructured BaTiO3/Cu2O heterojunction with improved photoelectrochemical activity for H2 evolution: Experimental and first-principles analysis. Applied Catalysis B: Environmental, 2016, 189, 75-85.	20.2	51
10	Understanding the photoelectrochemical properties of nanostructured CeO2/Cu2O heterojunction photoanode for efficient photoelectrochemical water splitting. International Journal of Hydrogen Energy, 2016, 41, 18339-18350.	7.1	48
11	Photoactivity of MWCNTs modified Î±-Fe2O3 photoelectrode towards efficient solar water splitting. Renewable Energy, 2015, 83, 447-454.	8.9	44
12	Irradiation-induced modifications and PEC response â€“ A case study of SrTiO3 thin films irradiated by 120ÂMeV Ag9+ ions. International Journal of Hydrogen Energy, 2011, 36, 5236-5245.	7.1	43
13	Nanostructured SrTiO3 thin films sensitized by Cu2O for photoelectrochemical hydrogen generation. International Journal of Hydrogen Energy, 2014, 39, 4189-4197.	7.1	40
14	Gradient doping â€“ a case study with Ti-Fe₂O₃ towards an improved photoelectrochemical response. Physical Chemistry Chemical Physics, 2016, 18, 32735-32743.	2.8	40
15	A photoelectrochemical study of nanostructured Cd-doped titanium oxide. International Journal of Hydrogen Energy, 2007, 32, 1299-1302.	7.1	39
16	CNT based photoelectrodes for PEC generation of hydrogen: A review. International Journal of Hydrogen Energy, 2017, 42, 3994-4006.	7.1	39
17	Synergistic effect of CdSe quantum dots on photoelectrochemical response of electrodeposited Î±-Fe2O3 films. Journal of Power Sources, 2014, 267, 664-672.	7.8	35
18	ZnO thin films, surface embedded with biologically derived Ag/Au nanoparticles, for efficient photoelectrochemical splitting of water. International Journal of Hydrogen Energy, 2014, 39, 18216-18229.	7.1	34

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19	Enhanced photoelectrochemical response of plasmonic Au embedded BiVO₄/Fe₂O₃ heterojunction. Physical Chemistry Chemical Physics, 2017, 19, 15039-15049.	2.8	34
20	Improved charge transportation at PbS QDs/TiO₂ interface for efficient PEC hydrogen generation. Physical Chemistry Chemical Physics, 2016, 18, 15815-15821.	2.8	33
21	Improved photoelectrochemical response of haematite by high energy Ag⁹⁺ions irradiation. Journal Physics D: Applied Physics, 2009, 42, 085303.	2.8	30
22	Nanostructured Zn-Fe2O3 thin film modified by Fe-TiO2 for photoelectrochemical generation of hydrogen. International Journal of Hydrogen Energy, 2010, 35, 10883-10889.	7.1	30
23	Morphological, optical and photoelectrochemical properties of Fe2O3â€“GNP composite thin films. RSC Advances, 2014, 4, 17671.	3.6	29
24	Plasmonic layer enhanced photoelectrochemical response of Fe2O3 photoanodes. Journal of Power Sources, 2016, 315, 152-160.	7.8	28
25	Enhancing efficiency of Fe2O3 for robust and proficient solar water splitting using a highly dispersed bioinspired catalyst. Journal of Catalysis, 2017, 352, 83-92.	6.2	28
26	Efficient hydrogen generation on CuO core/Ag TiO2 shell nano-hetero-structures by photocatalytic splitting of water. Renewable Energy, 2019, 136, 1202-1216.	8.9	28
27	Enhanced photoelectrochemical conversion performance of ZnO quantum dots sensitized Î±-Fe 2 O 3 thin films. International Journal of Hydrogen Energy, 2015, 40, 5583-5592.	7.1	27
28	CdSe quantum dots sensitized nanoporous hematite for photoelectrochemical generation of hydrogen. International Journal of Hydrogen Energy, 2014, 39, 11860-11866.	7.1	26
29	Enhanced Photoelectrochemical Response of Zn-Dotted Hematite. International Journal of Photoenergy, 2007, 2007, 1-6.	2.5	25
30	Enhanced photoelectrochemical properties of 100MeV Si8+ ion irradiated barium titanate thin films. Journal of Alloys and Compounds, 2013, 561, 114-120.	5.5	25
31	Surface deposition of Ag and Au nano-isles on ZnO thin films yields enhanced photoelectrochemical splitting of water. Journal of Applied Electrochemistry, 2015, 45, 299-312.	2.9	25
32	Nano-hetero-structured thin films, ZnO/Ag-(Î±)Fe2O3, with n/n junction, as efficient photoanode for renewable hydrogen generation via photoelectrochemical water splitting. Renewable Energy, 2021, 164, 156-170.	8.9	25
33	Nanostructured CuO/SrTiO3 bilayered thin films for photoelectrochemical water splitting. Journal of Solid State Electrochemistry, 2013, 17, 2531-2538.	2.5	24
34	A study on the effect of low energy ion beam irradiation on Au/TiO2 system for its application in photoelectrochemical splitting of water. Nuclear Instruments & Methods in Physics Research B, 2016, 379, 255-261.	1.4	24
35	Photoelectrochemical performance of bilayered Feâ€“TiO2/Znâ€“Fe2O3 thin films for solar generation of hydrogen. Journal of Solid State Electrochemistry, 2012, 16, 1305-1312.	2.5	23
36	Experimental and first-principles theoretical studies on Ag-doped cuprous oxide as photocathode in photoelectrochemical splitting of water. Journal of Materials Science, 2014, 49, 868-876.	3.7	22

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37	Photoelectrochemical splitting of water with nanocrystalline Zn1â^'xMnxO thin films: First-principle DFT computations supporting the systematic experimental endeavor. International Journal of Hydrogen Energy, 2014, 39, 3637-3648.	7.1	22
38	Electronic band-offsets across Cu2O/BaZrO3 heterojunction and its stable photo-electro-chemical response: First-principles theoretical analysis and experimental optimization. Renewable Energy, 2017, 113, 503-511.	8.9	22
39	Nanostructured Ni:BiVO4 photoanode in photoelectrochemical water splitting for hydrogen generation. International Journal of Hydrogen Energy, 2020, 45, 26746-26757.	7.1	22
40	Electrodeposition and solâ€“gel derived nanocrystalline Nâ€“ZnO thin films for photoelectrochemical splitting of water: Exploring the role of microstructure. Renewable Energy, 2014, 69, 242-252.	8.9	21
41	MWCNTs and Cu2O sensitized Ti Fe2O3 photoanode for improved water splitting performance. International Journal of Hydrogen Energy, 2018, 43, 6049-6059.	7.1	20
42	A study on 170MeV Au13+ irradiated nanostructured metal oxide (Fe2O3 and CuO) thin films for PEC applications. Nuclear Instruments & Methods in Physics Research B, 2006, 244, 128-131.	1.4	19
43	Nano Porous Hematite for Solar Hydrogen Production. Journal of the Electrochemical Society, 2012, 159, H685-H691.	2.9	19
44	Modified structural, morphological and photoelectrochemical properties of 120ÂMeV Ag9+ ion irradiated BaTiO3 thin films. Current Applied Physics, 2013, 13, 344-350.	2.4	17
45	Spray pyrolytically deposited Fe-doped Cu2O thin films for solar hydrogen generation: Experiments & first-principles analysis. Materials Chemistry and Physics, 2015, 160, 32-39.	4.0	16
46	Role and prospects of green quantum dots in photoelectrochemical hydrogen generation: A review. International Journal of Hydrogen Energy, 2022, 47, 11472-11491.	7.1	16
47	Photoelectrochemical generation of hydrogen using 100ÂMev Si8+ ion irradiated electrodeposited iron oxide thin films. International Journal of Hydrogen Energy, 2012, 37, 3626-3632.	7.1	14
48	3D-nano-hetero-structured n/n junction, CuO/Ruâ€“ZnO thin films, for hydrogen generation with enhanced photoelectrochemical performances. International Journal of Hydrogen Energy, 2020, 45, 21051-21067.	7.1	14
49	Augmented photoelectrochemical response of CdS/ZnS quantum dots sensitized hematite photoelectrode. International Journal of Energy Research, 2016, 40, 1811-1819.	4.5	13
50	Effect of morphology and impact of the electrode/electrolyte interface on the PEC response of Fe₂O₃ based systems â€" comparison of two preparation techniques. RSC Advances, 2020, 10, 42256-42266.	3.6	13
51	Nanocrystalline Zn1â^'x Ag x O y thin films evolved through electrodeposition for photoelectrochemical splitting of water. Journal of Solid State Electrochemistry, 2014, 18, 523-533.	2.5	12
52	Morphological influence of electrode/electrolyte interface towards augmenting the efficiency of photoelectrochemical water splitting â€" A case study on ZnO. Journal of Power Sources, 2019, 432, 38-47.	7.8	11
53	Chemically etched ZnO thin films, with surface-evolved nano-ridges, for efficient photoelectrochemical splitting of water. Journal of Solid State Electrochemistry, 2015, 19, 1311-1320.	2.5	10
54	Expanded light-absorption and efficient charge-separation: bilayered thin film nano-hetero-structures, CuO/Cuâ€“ZnO, make efficient photoanode in photoelectrochemical water splitting. Journal of Applied Electrochemistry, 2020, 50, 887-906.	2.9	10

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55	Zrâ€"W Co-doping in BiVO4 â€" Synergistic effect in photoelectrochemical water splitting. Materials Chemistry and Physics, 2021, 267, 124675.	4.0	9
56	Nâ€"TiO2 crystal seeds incorporated in amorphous matrix for enhanced solar hydrogen generation: Experimental & first-principles analysis. International Journal of Hydrogen Energy, 2022, 47, 22415-22429.	7.1	9
57	Experimental and first-principles studies of BiVO4/BiV1-xMnxO4-y n-n+ homojunction for efficient charge carrier separation in sunlight induced water splitting. International Journal of Hydrogen Energy, 2018, 43, 15815-15822.	7.1	8
58	Integrating PbS Quantum Dots with Hematite for Efficient Photoelectrochemical Hydrogen Production. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800839.	1.8	6
59	BiVO₄/Fe₂O₃/ZnFe₂O₄; triple heterojunction for an enhanced PEC performance for hydrogen generation. RSC Advances, 2022, 12, 12552-12563.	3.6	6
60	PHOTOELECTROCHEMICAL WATER SPLITTING USING BILAYERED ZnO/SrTiO3 PHOTOELECTRODES. International Journal of Modern Physics Conference Series, 2013, 22, 545-551.	0.7	4
61	Photoelectrochemical performance of CuO electrodes by surface modification with ZnO in water splitting process. AIP Conference Proceedings, 2016, , .	0.4	4
62	Zn1â^'xFexOy nanocomposites for renewable hydrogen produced efficiently via photoelectrochemical vis-a-vis photocatalytic splitting of water. SN Applied Sciences, 2019, 1, 1.	2.9	2
63	Wide Band Gap Quantum Dots Sensitized Î±-Fe2O3 Thin Film for Solar Generation of Hydrogen. Materials Research Society Symposia Proceedings, 2015, 1738, 54.	0.1	2
64	Ni-Doped Cu₂O Thin Films for Solar-Hydrogen Generation: Experiments and First-Principles Analysis. Advanced Science Letters, 2016, 22, 780-784.	0.2	2
65	Effect of 100ÂKeV Ar+ ion beam irradiation on ZnO thin films â€" Influence of morphology vis-a-vis electrode/electrolyte interface and its impact on photoelectrochemical water splitting. International Journal of Hydrogen Energy, 2021, 46, 20858-20870.	7.1	1
66	Structural, Morphological and Photoelectrochemical Behavior of Hematite Modified by 120 MeV Ag9+ Ions. Materials Research Society Symposia Proceedings, 2009, 1217, 1.	0.1	0
67	MWCNTs incorporated nanostructured Bismuth Vanadate for solar energy induced water splitting for hydrogen generation. Materials Today: Proceedings, 2021, , .	1.8	0